REMARKS

Initially, applicant would like to thank the Examiner for the helpful and courteous telephonic interview he conducted with applicant's undersigned representative on or about June 25, 2004. During such interview the above amendments to the independent claims were discussed as an potentially appropriate manner of distinguishing over the references applied in the Office Action, although no specific agreement was reached.

Upon entry of the present Amendment-E, the claims in the application are; claims 1-3, 5-9, and 12-23, of which claims 1, 3 and 17 are independent. Applicant is filing an RCE concurrently herewith.

Claim 20 is amended to cure the need for antecedent basis based on the Examiner's comment under *Claim Objection* on page 2. Hence, claim 20 is now presented in a properly dependent form depending from independent claim 3, and reflecting the proper antecedent basis. Independent claims 1, 3, and 17 are amended to further define the flow constricting / regulating purpose and function of each of flow constricting portions, namely the penetrating and the joint portion(s). The specification is amended to provide an express antecedent basis for the amended claim language.

Applicant respectfully submits that all of the above amendments are fully supported throughout the original application. Applicant further respectfully submits that the above amendments do not introduce any new matter into the application.

Art Based Rejections

On pages 2-3 of the Office Action, the Examiner rejects claims 1-3, 7 and 16-19 under 35 U.S.C. 102(b) as anticipated by Shiota et al. (US Patent 5,427,410), while on page 4 of the Office Action, the Examiner rejects claims 3, 5 and 12-15 under 35 U.S.C. 102(b) as anticipated by Maruyama (US Patent 5,593,179), and on pages 5-6 of the

Office Action, claims 6, 8 and 9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Shiota, and claims 20-23 are rejected over Japanese 4135940 (of record) in view of Maruyama. Relative to the Shiota patent, it is the Examiner's position that Shiota's airbag 10 having the cylindrical cloth 108 disposed therein reads on the airbag having at least one penetrating portion or at least one joint portion as defined in claims 1-3, 7 and 16-20, wherein the gas flow path extends continuously from the opening portion, and the same continues to an occupant restraint portion, and hence, the gas flows continuously from the opening portion to the occupant restraint portion through the gas flow path portion. In addition, the Examiner also asserts that the cloth 108 is a penetrating portion, which extends through the gas flow path portion, and that it would have been obvious to include a plurality of such penetrating portions, such as cylindrical cloth 108, in Shiota's air bag for cumulative effect as an obvious variation of the design. Regarding the Maruyama's patent, it is the Examiner's position that the air bag device disclosed in this reference includes all of the features set forth in the rejected claims viewing Maruyama's guide member 20 as connected within his air bag as the claimed joint portions, whereas such guide member is disposed only in the gas flow path portion of the airbag as indicated in his Fig. 2.

Applicant's Response

1. Upon careful consideration, and in light of the respective amendments to claims 1, 3, and 17, applicant again respectfully traverses the Examiner's rejections based on the Shiota patent, and submits that each of instant claims 1-3, 6-9 and 16-19 is clearly patentably distinct over the air bags of Shiota, because: the cylindrical cloth 108 of Shiota does not read on and does not make obvious the flow-constricting penetrating portion and the flow-constricting joint portion required by the independent claims 1, 3

and 17, i.e., disposed adjacent to the opening portion, and only in a gas flow path extending continuously from the gas inlet opening of the airbag to divide the gas flow path portion into multiple paths for flowing regulated quantity of gas from the opening portion into the occupant restraint portion of the air bag; such cylindrical cloth 108 does not disclose nor does it make obvious the features more specifically set forth in the dependent claims; and the claimed invention achieves significant advantages over the system of Shiota.

Again, each of the independent claims now defines the very unique functions of each of the flow-constricting/regulating penetrating portion(s) and the flow-constricting/regulating joint portion(s). These flow-constricting/regulating portions, disposed within the gas-flow path portion, and in conjunction with their close proximity to the opening portion, configure the gas flow path portion in a very unique way such that, only a regulated quantity of gas is allowed to flow into the occupant restraint portion to achieve an optimum result. In view of this novel characteristic of the flow-constricting/regulating portions of the instant invention, since the cylindrical cloth 108 of the Shiota reference is disposed farther away from the opening portion, it completely fails to constrict/regulate the quantity and flow of gas before the same is allowed to enter into the occupant restraint portion of the bag. The primary objective that is achieved by the location and presence of the cloth 108 of the reference is, to only reduce the volume of gas required to inflate the airbag. True, the gas does enter the occupant restraint portion from either side of the cloth 108, but since the cloth 108 is disposed farther away from the opening portion, and well within the occupant restraint portion, as shown in his drawings (especially his Figs. 4-6), the cloth 108 does not constrict/regulate the gas-flow to channel through multiple passages in the desirable manner as claimed. As disclosed,

the invention provides a simple gas-flow control to fill variously sized air bags using a single size inflator. Hence, the gas-flow paths created by the flow-constricting/regulating portions, within the gas flow path portion, of the instant air bag, though similar in name, are functionally quite different from the gas-flow paths of the Shiota reference.

Applicant again respectfully submits that the above distinction is very significant because the claimed air bag including the flow-constricting/regulating penetrating portion(s) or flow-constricting/regulating the joint portion(s) permits a much simpler and versatile adjustment of airbag characteristics than the air bag of Shiota. Particularly, because the flow-constricting/regulating penetrating portion(s) and flow-constricting /regulating the joint portion(s) are disposed adjacent the opening portion of the air bag, any necessary adjustments required to achieve a desired restraining characteristic are of a relatively small scale in comparison because the gas flow path portion itself is of comparatively small scale relative to the occupant restraint portion.

In this regard, applicant notes the Examiner's interpretation of Shiota's cylindrical cloth 108 as being disposed only in the gas flow portion of his air bag because Shiota's Fig. 2 shows that the gas flows from the opening portion to the other side of the cloth 108 indicating a commensurate flow path portion. Again, applicant respectfully traverses such interpretation of Shiota's disclosure, especially in view of the above amendments to the independent claims .

In regard to claims 16-17, the Examiner asserts that Shiota et al teaches the penetrating portion being sealed. In addition, since Shiota states that the vent holes 24, 24a may be disposed some other place than facing cavities 20, 20a, the Examiner interprets this as if, the vent holes may be disposed on the surface of the bag itself. Applicant respectfully traverses the Examiner's position for reasons presented in

Amendment-D and, again, based on the present amendments to the independent claims.

Further, applicant again respectfully submits that Shiota's air bag does not include or make obvious features of the dependent claims more specifically defining the flow-constricting penetrating and flow-constricting joint portions in conjunction to the specifically configured gas flow path portion.

2. Also upon careful consideration, applicant similarly respectfully traverses the Examiner's rejection based on the Maruyama patent, and submits that each of present claims 3, 5 and 12-15 is clearly patentably distinct over the air bag of Maruyama, because: the guide member 20, 28, 30 of Maruyama does not read on and does not make obvious the flow-constricting/regulating joint portion required by the independent claim 3, i.e., disposed adjacent to the opening portion, and only in a gas flow path extending continuously from the gas inlet opening of the airbag to divide the gas flow path portion into multiple paths for flowing regulated quantity of gas from the opening portion into the occupant restraint portion of the air bag; such guide members 20, 28, 30 do not disclose or make obvious the features more specifically set forth in the dependent claims; and the claimed invention achieves significant advantages over the system of Maruyama.

The disposition of the claimed flow-constricting/regulating joint portion(s) adjacent the opening portion of the airbag, and the advantages of such disposition are discussed above. In direct contrast, Maruyama's guide members 20, 28, 30 are necessarily disposed in the occupant restraint portion of his air bag, and unlike the joint portions of the instant invention, they do not configure the gas flow path portion, adjacent to the opening portion, to regulate and control the flow of the gas before the same is allowed to fill the cavity of the occupant restraint portion. As stated above in conjunction with the penetrating portion(s), the function of the joint portion of the instant air bag is to

effectively constrict/regulate and channel the gas flow such that only a desired quantity of gas is let go passed the gas flow path portion to optimally fill the occupant restraint portion. In this regard, the gas flows along specifically configured multiple paths of gas flow path portions, disposed adjacent to the opening portion, which are both structurally and functionally different from the paths around the guides of the Maruyama air bag. Since the guides 20, 28, 30 are not disposed adjacent the opening portion of the airbag, they fail to constrict/regulate and channel the gas, as it is discharged from the inflator. Hence, the multiple gas flow path portions; so configured and created by the uniquely sized and shaped flow-constricting/regulating joint portions are, by definition, both structurally and functionally quite different from the gas flow path portions of the Maruyama reference.

Again, the unique constricting/regulating function of the flow-constricting joint portion is unobviously advantageous over conventional structures, including that of Maruyama.

In rejecting claims 20-23, under 35 U.S.C. §103(a), the Examiner states that the Japanese reference 4135940 (JP '940), in view of Maruyama's, would have made the instant invention obvious to one of ordinary skill in the art. Applicant respectfully traverses such rejection because neither Maruyama nor JP '940 disclose or suggest the flow constricting/regulating joint portion(s) as claimed, such that any hypothetical combination of these references based on the actual teachings thereof will also fail to achieve or make obvious the claimed invention.

Based on the foregoing, the Examiner's rejections of claims 1-3, 5-9 and 12-23 based on the Shiota, Maruyama, and Japanese 4135940 references are believed to be overcome, and accordingly it is respectfully requested that the rejections be reconsidered

and withdrawn.

Conclusion

In conclusion, applicant has overcome the Examiner's objection and rejections as presented in the Office Action; and moreover, applicant has considered all of the references of record, and it is respectfully submitted that the invention as defined by each of the present claims is clearly patentably distinct thereover.

The application is now believed to be in condition for allowance, and a notice to this effect is earnestly solicited.

If the Examiner is not fully convinced of all of the claims now in the application, applicant respectfully requests that she telephonically contact applicant's undersigned representative to expeditiously resolve prosecution of the application.

Favorable reconsideration is respectfully requested.

Respectfully submitted,

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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being submitted via facsimile transmission to the US Patent & Trademark Office, Art Unit 3616, on August 18, 2004.